SPECTRUM®

STHi
Management Module Guide

CABLETRON SYSTEMS
The Complete Networking Solution™

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Cabletron Systems, Inc.
P.O. Box 5005
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Preface

Before reading this manual, you should be familiar with SPECTRUM's functionality. Familiarity with network management is helpful, as is an understanding of the device hardware and firmware described in the STHi hardware manuals.

What is in This Guide

This manual serves as a reference guide to the STHi management module software, providing the information necessary to create, configure, and monitor the STHi in SPECTRUM.

This guide is organized as follows:

Chapter	Description
Chapter 1 **Introduction**	Describes the STHi management module how it is managed with SPECTRUM.
Chapter 2 **Device Views**	Describes the STHi's Logical and Physical Device Views
Chapter 3 **Configuration Views**	Describes the Configuration Views for the STHi Device, Module, Ring Ports, and Station Ports.
Chapter 4 **Events and Alarm Messages**	Provides a table of the SPECTRUM Event messages and their corresponding Probable Cause messages.
Chapter 5 **STHi Network Application**	Describes the Network application in the STHi's Application view, which allows you to view information relating to the ring in which the STHi is installed.

Conventions

The following conventions are used in this manual.

- Command names are printed in **bold**; for example, **Clear** or **Save & Close**.
- Menu selections to access a view are printed in **bold**; for example, **Configuration** or **Detail**.
- Buttons are represented by a shadowed box; for example, **Help** .

Related SPECTRUM Documentation

Refer to the following documentation for more information on using SPECTRUM:

SPECTRUM Report Generator User's Guide

SPECTRUM AutoDiscovery User's Guide

Getting Started with SPECTRUM for Operators

Getting Started with SPECTRUM for Administrators

How to Manage Your Network with SPECTRUM

Other Related Documentation

LAN Troubleshooting Handbook, Mark Miller (1989, M&T Publishing, Inc.)

Local Area Networks, Architectures and Implementations, James Martin & Kathleen K. Chapman for the Arben Group, Inc. (1989, Prentice-Hall, Inc.)

The Simple Book — An Introduction to Management of TCP/IP-based Internets, Marshall T. Rose, Performance Systems International, Inc.

Computer Networks, Andrew S. Tanenbaum, Prentice-Hall, Inc.

Internetworking Technology Overview, Cisco Systems, Inc. (1993, Cisco Systems, Inc.)

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Chapter 1

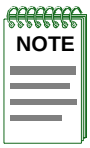
Introduction

What is in this Chapter

This chapter describes the SPECTRUM Management Module for Cabletron's STHi stackable hub. This chapter also provides the name of the model type SPECTRUM assigns to the STHi hub. The SPECTRUM model type name refers to the template used to specify attributes, actions, and associations for device models in SPECTRUM.

STHi Management Module

HubCSISTHI
The HubCSISTHI model type supports the STHi-22T, STHi-24T, STHi-42 and the STHi-44T devices. These Token Ring devices support 12 or 24 station ports, as well as a Ring Out and Ring In port. The STHi will support additional STH non-intelligent stackable hubs, allowing the STHi hub to support up to 120 station ports.



If you are running a previous version of SPECTRUM, the following user interface aspects may differ from those in SPECTRUM version 4.0:

- *Order and names of menu selections*
- *Navigational features (mouse button functionality)*

Valid Views for Model Creation and Placement

STHi models may be created and placed in many SPECTRUM views. Table 1-1 lists the valid SPECTRUM views and models in which an STHi model may be created or placed.

Table 1-1. Valid Views for STHi Model Creation and Placement

View	Models
Location	Room, Rack, or Panel
Topology	ATM_Network, FDDI, LAN_802_3, LAN_802_5
Device Topology	Any hub model
Cablewalk	Coax_Segment or Fanout
Organization	Org_Owns

STHi Applications

The STHi supports both common and device-specific applications described in ***SPECTRUM Views***. SPECTRUM management of the STHi utilizes the following Management Information Bases (MIBs) which come as a part of the software module for the model type:

- Internet MIB-II (RFC 1213)
- CtChassis MIB
- CtDevice MIB
- RS232 MIB (RFC 1317)
- CtDownload MIB
- DS1 Interface MIB (RFC 1406)
- Cabletron Dot5 MIB
- Cabletron Dot5 Physical MIB

RMON and DLM are also supported, and may be purchased separately. The following chapters explain how you use SPECTRUM and the management module software to monitor a STHi stackable hub.

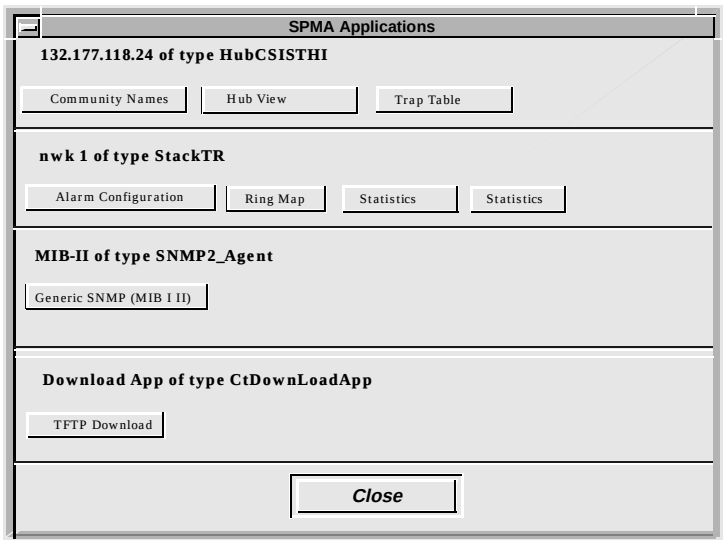
STHi and SPMA

SPECTRUM also provides SPMA (SPECTRUM Portable Management Application) functionality for the STHi. To open the SPMA Application view from any SPECTRUM view, do the following:

1. Select **Icon Subviews** from the View menu.
2. Select **Utilities** from the Icon Subviews menu.
3. Select **Applications** from the Utilities menu.

The SPMA Applications view provides buttons to select SPMA-specific views and dialog boxes. An example of an SPMA Applications view is provided below.

Figure 1-1. SPMA Applications View



SPMA for the STHi is described in the *SPECTRUM Portable Management Application for the STHI User's Guide* and the *SPECTRUM Portable Management Application for the STHi Tools Guide*. For details on the following views, refer to the *SPECTRUM Portable Management Application for the STHI User's Guide:*

- Chapter 2, *Using the STHI Hub View*, describes the visual display of the Hub and explains how to use the mouse within the Hub View; the operation of some basic functions available only from the Hub view are also described.

- Chapter 3, *Ring Map*, describes the Ring Map window, the Management Station Configuration window and the Ring History Information window.

- Chapter 4, *Alarm Configuration*, describes how to set and view Ring and Station alarms.

- Chapter 5, *Statistics*, describes viewing the Ring Station List, monitoring Ring and Station Statistics, and Ring and Station variables.

For details on the following views, refer to the *SPECTRUM Portable Management Application Tools Guide*:

- Chapter 2, *Using the MIB I, MIB II Tool*, explains how to use this tool to view and change MIB I and MIB II object ID values.

- Chapter 3, *Using the Community Names Tool*, explains Cabletron's "Component" structure of device MIBs, and describes how to change device community names.

- Chapter 5, *Using TFTP Download Tool*, explains how to upgrade firmware on Cabletron devices equipped with Flash EEPROMs.

- Chapter 6, *The Traps Table Tool*, explains how to establish which network management workstations on your network will receive trap alarms from a selected device, and also provides a brief overview of some of the traps supported by Cabletron Systems' devices.

- Chapter 7, *Using Charts and Meters*, explains how to launch charts or meters (used to analyze device statistics) from a UNIX prompt, and control the Meter Tool's display.

- Chapter 8, *Configuring and Monitoring an Uninterruptible Power Supply*, introduces the UPS system (which connects a computer interface port to an intelligent MIM) and explains how to start, configure, and monitor the UPS Tool.

- Chapter 9, *Using DLM*, explains how to manage "smart hub" devices, or DLM Servers, on your network. Accessing the DLM Application and its windows, adding/deleting DLM entries, and managing DLM is also described.

- Chapter 10, *Using the Path Tool*, explains how to generate a list of router hops between a managed Cabletron device and a remote destination, and display specific information about each hop found in the router path.

- Chapter 11, *MIB Tree/MIB Tools*, provides an overview of the MIB Browser, the MIB Details tool, the MIB Editor, and browsing the MIB Tree.

Chapter 2

Device View

What is in this Chapter

This chapter describes the STHi's Logical and Physical Device views and how to utilize these views to manage and access information from the STHi module. The Logical Device view provides a logical representation of the STHi module and access to configuration and status information on the module itself, the Ring In and Ring Out ports, and the station ports. The Physical Device view provides a physical representation of the STHi and allows access to configuration and status information for the STHi module.

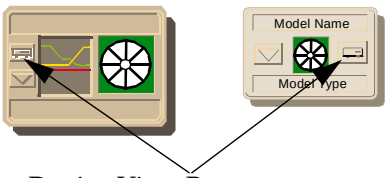
Logical Device View

The Logical Device view provides access to detailed information about the STHi module and the STH hubs connected to it, the Ring In and Ring Out ports, and the individual station ports. Figure 2-1 illustrates the Logical Device view for the STHi. Figure 2-2 displays the STHi Logical Module and the menu selections available by double-clicking the left mouse button on each zone of the module.

Accessing the Logical Device View

The Logical Device View is accessed using one of the following methods:

- Double-click on the Device View button of the STHi device icon. This will open the Device View that was opened last (i.e. Logical or Physical)



- Highlight the STHi device icon and select **Device -> Logical** from the Icon Subviews menu.

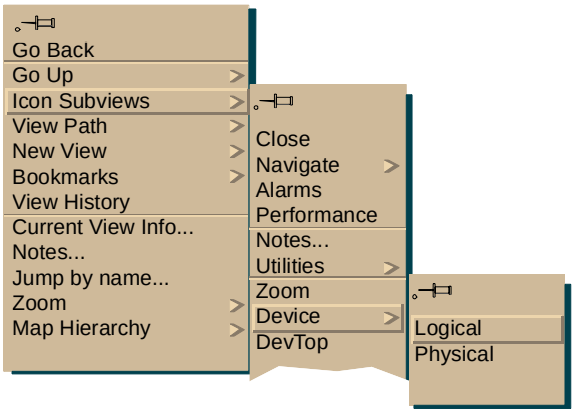


Figure 2-1. STHi Logical Device View

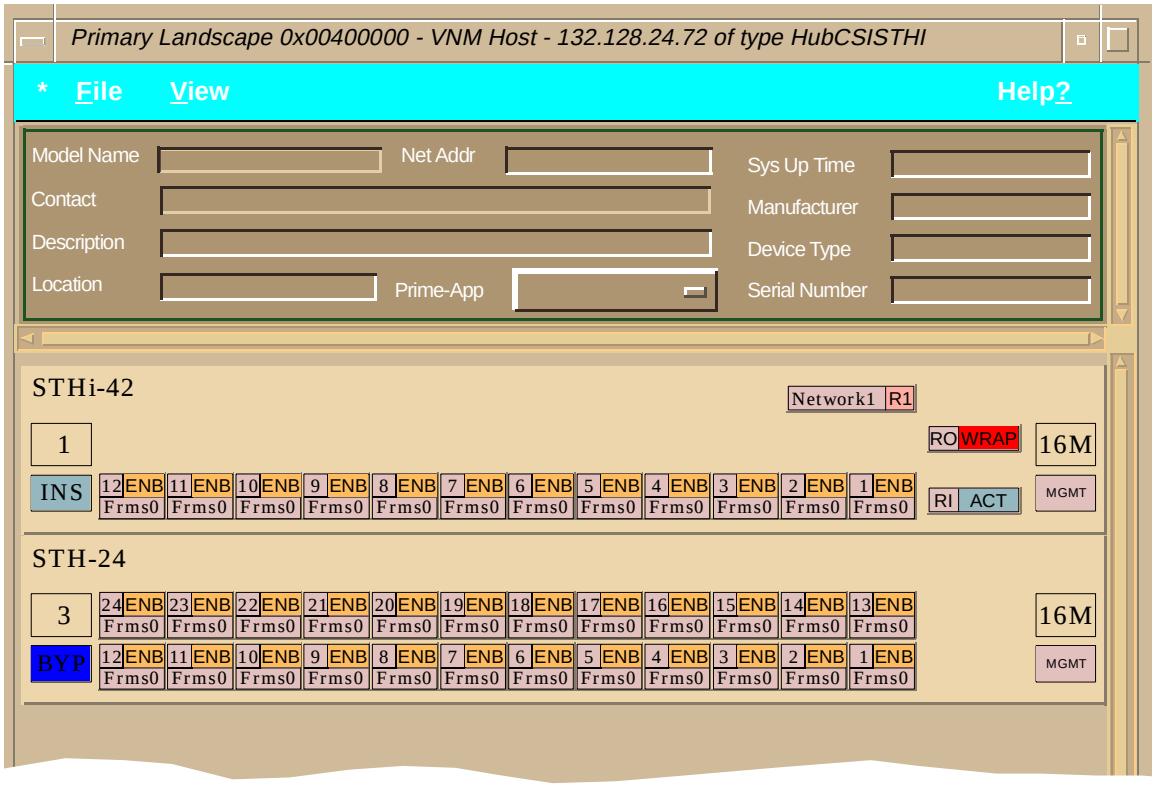

Primary Landscape 0x00400000 - VNM Host - 132.128.24.72 of type HubCSISTHI
* File View Help?
Model Name
Net Addr
Sys Up Time
Contact
Manufacturer
Description
Device Type
Location
Prime-App
Serial Number
STHi-42
Network1 R1
1
RO WRAP
16M
INS
12 ENB Frms0 11 ENB Frms0 10 ENB Frms0 9 ENB Frms0 8 ENB Frms0 7 ENB Frms0 6 ENB Frms0 5 ENB Frms0 4 ENB Frms0 3 ENB Frms0 2 ENB Frms0 1 ENB Frms0
RI ACT
MGMT
STH-24
3
24 ENB Frms0 23 ENB Frms0 22 ENB Frms0 21 ENB Frms0 20 ENB Frms0 19 ENB Frms0 18 ENB Frms0 17 ENB Frms0 16 ENB Frms0 15 ENB Frms0 14 ENB Frms0 13 ENB Frms0
16M
BYP
12 ENB Frms0 11 ENB Frms0 10 ENB Frms0 9 ENB Frms0 8 ENB Frms0 7 ENB Frms0 6 ENB Frms0 5 ENB Frms0 4 ENB Frms0 3 ENB Frms0 2 ENB Frms0 1 ENB Frms0
MGMT

Figure 2-2. STHi Logical Device View -Label and Double-Click Zones

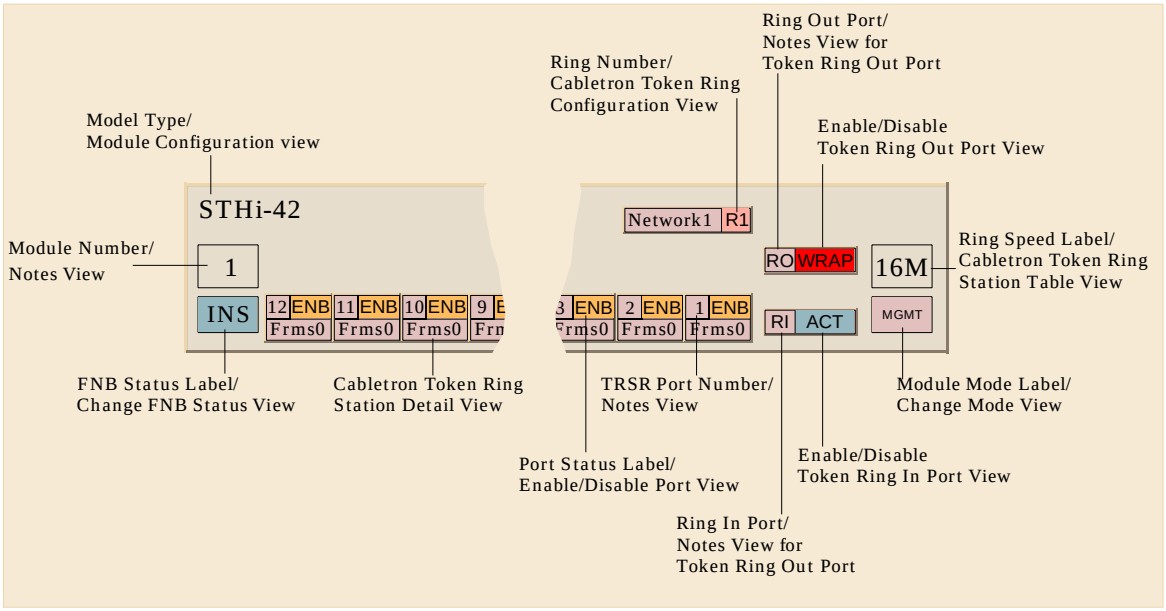


Table 2-1. Module Menu Selections

Menu Selection	Description
Module DevTop	Opens the STHi's Device Topology view, allowing you to view logical representations of the module's station and ring ports.
Module Configuration	Opens the Module Configuration view, allowing you to set the STHi's mode and ring speed. Also allows you to enable or disable all station, ring, and module ports. See Chapter 3, *Configuration Views.*
Change Module Mode	Opens the Change Module Mode view, allowing you to change the STHi's mode.
Change FNB Status	Opens the Change FNB Status view, allowing you to change the STHi's FNB status.
Enable All Station Ports	Opens the Enable All Station Ports view, allowing you to enable all of the module's station ports.
Enable All Ring Ports	Opens the Enable All Ring Ports View, allowing you to enable the STHi's Ring In and Ring Out ports.

Table 2-2. Token Ring Icon Subviews

Menu Selection	Description
Stations	Opens the Cabletron Token Ring Station Table view, which displays traffic information for each station on the ring. For more information on the Stations Table View, please refer to Chapter 5, *STHI Network Application*.
Configuration	Opens the Cabletron Token Ring Configuration View, allowing you access to Port and Host configuration information as well as access to the Ring Configuration View and the Alarms Table View. For more information, see Chapter 3, *Configuration Views*.
Station Errors	Opens the Cabletron Token Ring Station Isolating Errors Table View, allowing you access to error information for each port as well as the Non-Isolating Errors Table View, the Alarms Table View, the Station Detail View, the Station Alarms View, and the Remove Station View.
Stack Model Information	Opens the Stackable Token Ring Model Information View, allowing you access to general information about the STHi module.
Stack Performance	Opens the Cabletron Token Ring Performance View, allowing you access to the performance information for the chosen Primary Application as well as access to the Error Detail and Frame Detail Views.

Table 2-3. Ring In/Ring Out Port Icon Subviews

Menu Selection	Description
Port Notes	Opens the Port Notes View, allowing you to write, save, and/or email notes concerning the Ring In or Ring Out Port.
Port Configuration	Opens the Ring Port Configuration View, allowing you to view and change Ring Port settings.
Enable/Disable Ring In/Ring Out Port	Opens the Enable/Disable Ring In or Ring Out Port View, allowing you to enable or disable the highlighted port.
Bypass Ring Ports	Currently opens Default GIB.

Table 2-4. Station Port Icon Subviews

Menu Selection	Description
Port Notes	Opens the Port Notes view, allowing you to write, save and/or email notes concerning the highlighted station port.
Port Configuration	Opens the Station Port Configuration view, allowing you to view and change Station Port Settings.
Port Station MAC Address	Opens a view displaying the MAC address of the station connected to this port.
Station Detail	Opens a view displaying Station information.
Enable/Disable Port	Opens the Enable/Disable Port view, allowing you to disable or enable the highlighted port.

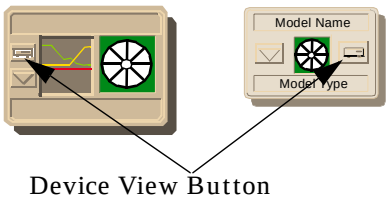
Physical Device View

The Physical Device view provides a graphical representation of the STHi and allows access to the Module Configuration, DevTop, and Logical Device views for the STHi module. Figure 2-3 shows the STHi's Physical Device view.

Accessing the Physical Device View

The Physical Device View is accessed using one of the following methods:

- Double-click on the Device View button of the STHi device icon. This will open the Device View that was opened last (i.e. Logical or Physical).



- Highlight the STHi device icon and select **Device -> Physical** from the Icon Subviews menu.

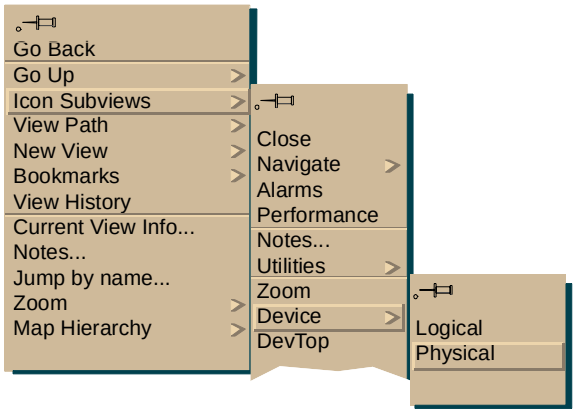


Figure 2-3. STHi Physical Device View

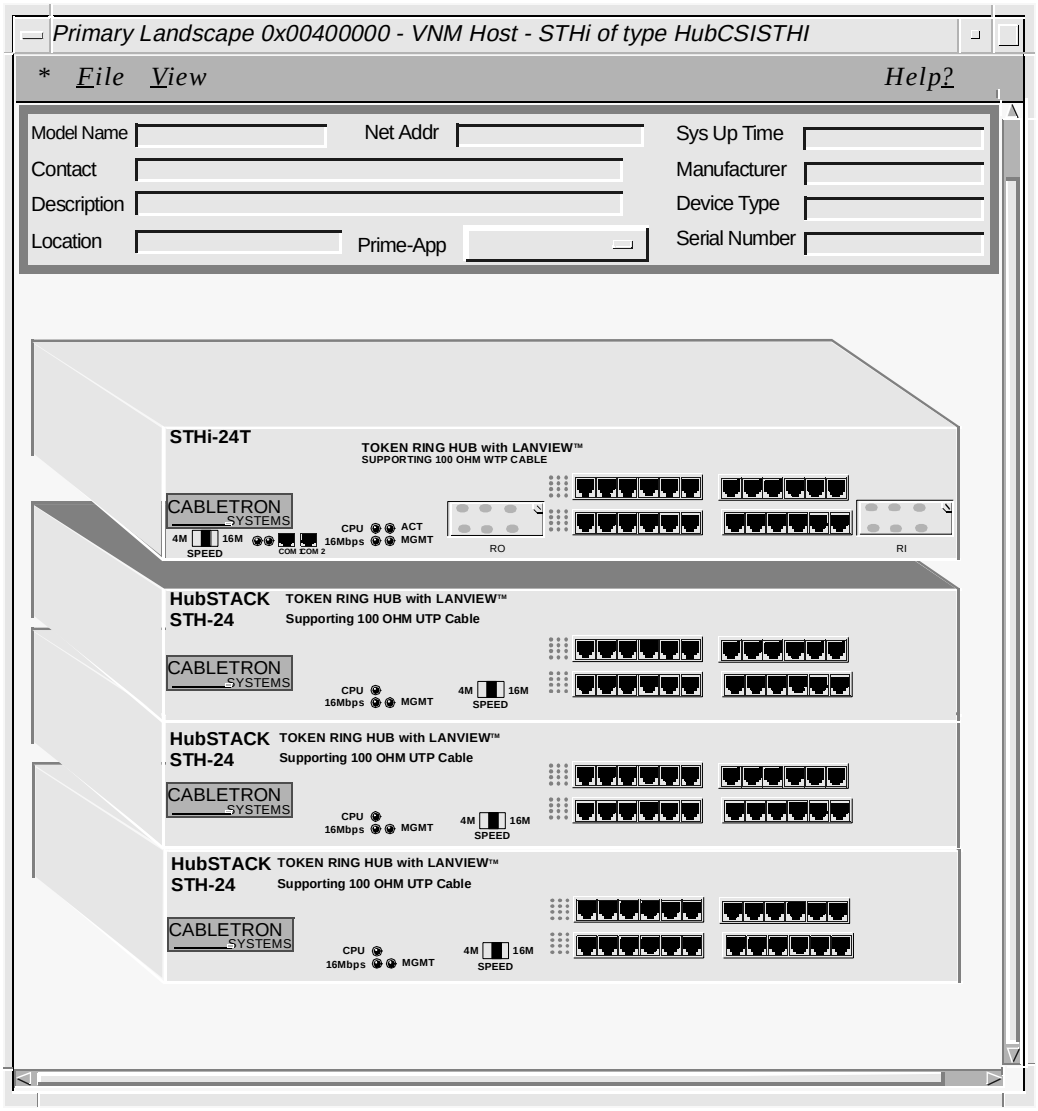


Table 2-5 describes the icon subviews accessible from the STHi's Physical Device View.

Table 2-5. STHi Physical Device View Icon Subviews

Menu Selection	Description
Logical Device	Opens the STHi Logical Device view
Performance	Opens the Performance view, which displays performance information concerning the STHi's Primary Application.
Module DevTop	Opens the Device Topology view for the STHi module. For more information on the Device Topology view, refer to ***SPECTRUM Views***.
Module Configuration	Opens the Module Configuration view. For more information, refer to Chapter 3, *Configuration Views*.
Change Module Mode	Opens the Change Module Mode view.
Change FNB Status	Opens the Change FNB Status view.
Enable All Station Ports	Opens the Enable All Station Ports view
Enable All Ring Ports	Opens the Enable All Ring Ports view

Chapter 3

Configuration Views

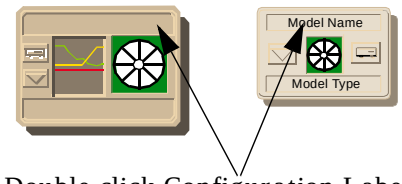
What is in this Chapter

This chapter describes the configuration views available for the STHi module. These views allow you to access and change the configuration settings for the STHi module, its Ring In and Ring Out Ports, and its station ports. The STHi module supports the the configuration views listed below.

- Device
- Module
- Cabletron Token Ring
- Ring Port
- Station Port

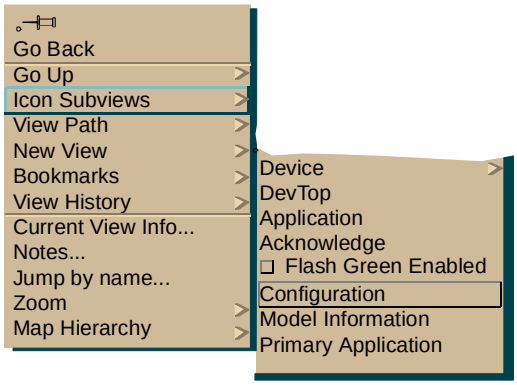
STHi Device Configuration View

The STHi Device Configuration view provides information on the configuration settings for the STHi and allows you to change some of the configuration settings. Access the STHi Device Configuration view using one of the following methods:



Double-click Configuration Label

- Highlight the MicroMMAC-T device icon and select **Configuration** from the Icon Subviews menu.



The STHi Device Configuration View provides access to the following configuration information for the STHi.

Firmware Revision
This field displays the Firmware Revision of the STHi.

Hardware Revision
This field displays the Hardware Revision of the STHi.

Below the Firmware and Hardware Revision fields, the Interface Configuration Table allows you to view the Interface Address, Description, Type and Operational Status for each device interface.

The Device Configuration View provides the following information:

Contact Status
This field indicates contact with the device has been established.

Component Table

Clicking on this button accesses the SPMA Community Name Tool, which lists the STHi components. For detailed information about the Community Name table, please refer to the *SPECTRUM Portable Management Application Tools Guide*.

Download Application

Clicking on this button accesses the DownLoad Application View. This view allows you to upgrade the firmware for a STHi from a TFTP Boot or Bootp Server. For more information on this view, refer to the *SPECTRUM Portable Management Application Tools Guide*.

Trap Table

Clicking on this button accesses the Trap Table, which allows the user to specify and enable traps for devices with access to the STHi. This SPMA utility is described in the *SPECTRUM Portable Management Application Tools Guide*.

Interface Configuration Table

The Interface Configuration Table provides the following configuration information for each of the STHi's ports.

Interface Address
The Ethernet (MAC) address of the port.

Description
Describes the type of interface.

Type
The type of hardware interface for the port. Possible interface types and a brief description of each type are shown in Table 3-1.

Operational Status
The current operational state of this port (Up, Down, or Testing).

Table 3-1. STHi Interface Types

Interface Type	Description
other	None of the following
regular1822	Regular 1822
hdh1822	HDLC Distant Host protocol
ddn-X25	Defense Data Network X.25
rfc877-x25	RFC877 X.25
ethernet-csmacd	Ethernet CSMA/CD
iso88023-csmacd	ISO CSMA/CD
iso88024-tokenRing	ISO token bus
iso88025-tokenRing	ISO token ring
iso88026-man	ISO man
starLan	StarLAN IEEE 802.3
proteon-10Mbit	ProNET 10 Mbps
proteon-80Mbit	ProNET 80 Mbps
fddi	Fiber Distributed Data Interface
lapb	X.25 Line Access Procedure, Balanced
sdlc	IBM Synchronous Data Link Control protocol
ds1	T1 link (USA and Japan)
e1	T1 link (Europe)
basicISDN	Basic Integrated Services Digital Network
primaryISDN	Primary Integrated Services Digital Network
propPointToPointSerial	Proprietary Point to Point Serial
ppp	Point to Point protocol
softwareLoopback	Software Loopback
eon	Connectionless Network Protocol over IP
ethernet-3Mbit	Ethernet 3 Mbps
nsip	Xerox Network Service Protocol over IP
slip	Generic Serial Line IP
ultra	ULTRA Technologies
sip	Switched Multimegabit Data Service
frame-relay	T1 Frame relay

Sorting Table Entries

To sort the entries in the Interface Configuration Table, follow these steps.

1. Choose the table field whose entries you wish to organize. (Interface Address, Description, Type, or Operational Status.)
2. Choose **Sort Up**, **Sort Down**, or **Un-Sort** by clicking on the Sort button.

Canonical/MAC Display

To change the display type between canonical and MAC addresses, click the MAC or Canonical button. The button toggles between the two settings and displays the interface format currently displayed.

Interface Detail View

Click on the Interface Detail View button to bring up the Interface Detail view. This view displays the interface number, address, type, status, and the length of time since the last change to the interface settings. You may change the administrative status for the interface by clicking on the Admin Status button.

Module Configuration View

The STHi's Module Configuration View allows you to view and set the following configurations.

Module Mode
Click on the Module Mode button and choose the between **Management**, **Auto**, and **Unknown**.

Module Ring Speed
Click on the Module Ring Speed button and choose **16M** or **4M**.

The lower portion of the Module Configuration View displays module port configuration settings and information. Two fields display the number of station and ring port on out of the total number if station and ring ports. A third field displays the total number of ports on out of the total number of ports for the module.

Enabling or disabling all Station, Ring, and/or Module ports
Click on the button next to Enable ALL STATION Ports, Enable ALL RING Ports, or Enable ALL MODULE Ports.

Ring Port Configuration View

The Ring Port Configuration View displays the configuration settings for the STHi's Ring In or Ring Out port, depending upon which port is highlighted.

Changing the Port Admin State
Click on the Port Admin State button so that it displays **Enabled** or **Disabled**.

Selecting the Port Media
Click on the Port Media Select button so that it displays **NotSelectable**, **STP** (for shielded twisted pair cable), or **Fiber** (for fiber optic cable).

Changing the Port Phantom Current setting
Click on the Port Phantom Current button so that it displays **Activated**, **Deactivated**, or **NotAvailable**.

Station Port Configuration View

Access the Station Port Configuration View by highlighting a station port in the STHi's Logical Device View and select **Port Configuration** from the Icon Subviews menu.

Enabling or disabling a station port
Click on the Port Admin State button so that it displays Enabled or Disabled.

Enabling or disabling a Port Insertion Trap
Click on the Port Insertion Trap button so that it displays Enabled or Disabled.

Cabletron Token Ring Configuration View

Access the Cabletron Token Ring Configuration View by highlighting the hubstack icon within the Logical Device View's STHi module icon and choosing **Configuration** from the Icon Subviews menu.

The Cabletron Token Ring Configuration View provides information on the ring to which the STHi is attached and allows you to enable or disable all ring and/or station ports and provides information on the Host Configuration. The Cabletron Token Ring Configuration View also provides access to the Ring Configuration View and the Alarms Table.

The Host Configuration portion of the Cabletron Token Ring Configuration View allows you to choose which network errors the host will monitor. You may also set host commands and configure Active Monitor Contention.

Host Commands

Click the commands button and choose from **NoOperation**, **HardwareReset**, **SoftwareReset**, **Open**, or **Close**.

Active Monitor Contention

Click on the Active Monitor Contention button and choose from **???**, **Allowed**, or **Notallowed**.

Chapter 4

Event and Alarm Messages

What is in this Chapter

This chapter describes the types of events and alarms generated by the STHi and provides any probable cause messages corresponding to these alarms.

STHi Events and Alarms

SPECTRUM supports the following events for the STHi. Table 4-1 lists the generic events and alarms for STHi devices.

Table 4-1. STHi Event and Probable Cause Messages

Message in the Event Log	Alarm View Probable Cause Message
{d "%w- %d %m-, %Y - %T"} - MODULE REMOVAL - Device {m} of Type {t} reported that Module {I 1} has been Removed. - (event [{e}])	Prob00420107 MODULE REMOVAL SYMPTOMS: A Module within this Chassis has been Removed or has Failed.
{d "%w- %d %m-, %Y - %T"} - MODULE INSERTION - Device {m} of Type {t} reported that a Module has been Inserted into Slot {I 1}. - (event [{e}])	MODULE INSERTION SYMPTOMS: A Module has been Inserted into this Chassis.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

{d "%w- %d %m-, %Y - %T"} - TEMPERATURE WARM - Device {m} of Type {t} reported that the Module {I 1} Temperature is Warm. - (event [{e}])	Prob00420119 TEMPERATURE WARM SYMPTOMS: The Module may be defective or a fan has failed in the Chassis. RECOMMENDED ACTIONS: 1) Verify that Module is not defective. 2) Check for fans failures in the Chassis and repair as needed.
{d "%w- %d %m-, %Y - %T"} - TEMPERATURE HOT - Device {m} of Type {t} reported that the Module {I 1} Temperature is Hot. - (event [{e}])	TEMPERATURE HOT SYMPTOMS: A Module may be defective or a fan has failed in the Chassis. A serious heat condition is present and should be addressed immediately. RECOMMENDED ACTIONS: 1) Verify that Module is not defective. 2) Check for fans failures in the Chassis and repair as needed.
Event0042011b {d "%w- %d %m-, %Y - %T"} - VOLTAGE LOW - Device {m} of Type {t} reported that the Slot {I 1} Power Supply Voltage is Low. - (event [{e}])	VOLTAGE LOW SYMPTOMS: The internal voltage of the Power Supply Module is Low. PROBABLE CAUSES: 1) The Power Supply unit is defective. 2) An AC Power Failure has occurred in the Power Supply. RECOMMENDED ACTIONS: 1) Check the Power Supply unit on device. 2) Check Power source to device.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event0042011c {d "%w- %d %m-, %Y - %T"} - TEMPERATURE NORMAL - Device {m} of Type {t} reported that the Module {I 1} Temperature is Normal. - (event [{e}])	No probable cause message.
Event0042011d {d "%w- %d %m-, %Y - %T"} - VOLTAGE NORMAL - Device {m} of Type {t} reported that the Slot {I 1} Power Supplly Voltage is Normal. - (event [{e}])	No probable cause message.
Event0042011e {d "%w- %d %m-, %Y - %T"} - FAN ABNORMAL - Device {m} of Type {t} reported that a Fan in the Chassis has Failed or is operating at an abnormal RPM rate. - (event [{e}])	FAN ABNORMAL SYMPTOMS: A problem has been detected with a Cooling Fan or the Fan Tray Assembly for this device. RECOMMENDED ACTIONS: This failure should be addressed before overheating causes damage to the device. Check for fans failures in the Chassis and repair as needed.
Event0042011f {d "%w- %d %m-, %Y - %T"} - FAN NORMAL - Device {m} of Type {t} reported that a Fan in the Chassis has resumed Normal Operation. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420125 {d "%w- %d %m-, %Y - %T"} - VOLTAGE LOW - Device {m} of Type {t} reported that the System Power Supply Voltage is Low. - (event [{e}])	Prob00420125 VOLTAGE LOW SYMPTOMS: The internal voltage of the System Power Supply is Low. PROBABLE CAUSES: 1) The Power Supply unit is defective. 2) An AC Power Failure has occurred in the System Power Supply. RECOMMENDED ACTIONS: 1) Check the System Power Supply unit on the device. 2) Check Power source to device.
Event00420126 {d "%w- %d %m-, %Y - %T"} - VOLTAGE NORMAL - Device {m} of Type {t} reported that the System Power Supply Voltage has returned to Normal. - (event [{e}])	No probable cause message.
Event00420136 {d "%w- %d %m-, %Y - %T"} - MODULE INSERTION - Device {m} of Type {t} reported that a Module has been Inserted into Slot {I 1}. - (event [{e}])	Prob00420136 MODULE INSERTION SYMPTOMS: A Module has been Inserted into this Chassis.
Event00420201 {d "%w- %d %m-, %Y - %T"} - PORT INSERTED - Device {m} of Type {t} reported that a Station has been Inserted into Port {I 2} in Module {I 1}.- (event [{e}])	No probable cause message.
Event00420202 {d "%w- %d %m-, %Y - %T"} - PORT DEINSERTED - Device {m} of Type {t} reported that a Station has been DeInserted from Port {I 2} in Module {I 1}. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420203 {d "%w- %d %m-, %Y - %T"} - RING SPEED FAULT - Device {m} of Type {t} reported that Module {I 1} has entered the Ring Speed Fault State. - (event [{e}])	Prob00420203 RING SPEED FAULT SYMPTOMS: A Token Ring Module has entered the Ring Speed Fault State. PROBABLE CAUSES: 1) A Station or Ring Port attaching with a different speed than this Module is configured for. RECOMMENDED ACTIONS: 1) Detach the Station or Ring Port from the Module. 2) Re-configure the Station or Ring Port speed to match the speed of the affected Module. 3) Re-attach the Station or Ring Port to the Module.
Event00420204 {d "%w- %d %m-, %Y - %T"} - RING SPEED FAULT CLEARED - Device {m} of Type {t} reported that Module {I 1} has left the Ring Speed Fault State. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420205 {d "%w- %d %m-, %Y - %T"} - RING PORT FAULTED - Device {m} of Type {t} reported that Ring Port {I 2} in Module {I 1} has entered the Wrapped State while its Management State was Enabled. - (event [{e}])	Prob00420205 RING PORT FAULTED SYMPTOMS: A Ring Port has entered the Wrapped State while its Management State was Enabled. PROBABLE CAUSES: 1) Bad cable connected to affected Port. 2) Device is down at other end of the cable. 3) Device connection is bad at other end of the cable. RECOMMENDED ACTIONS: 1) Check cable connected to affected Port. 2) Power up Device at other end of the cable. 3) Check Device connection at other end of the cable.
Event00420206 {d "%w- %d %m-, %Y - %T"} - RING PORT FAULT CLEARED - Device {m} of Type {t} reported that Ring Port {I 2} in Module {I 1} has left the Wrapped State. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420207 {d "%w- %d %m-, %Y - %T"} - BEACON STATE - Device {m} of Type {t} reported that a Beacon State has been detected. The Upstream Neighbor Station is {X 3}. - (event [{e}])	Prob00420207 BEACON STATE SYMPTOMS: A Station attached to this Device has detected a new Beacon on the Ring while the Ring was in Operational State. PROBABLE CAUSES: 1) The cable between this Station and its Upstream Neighbor. 2) The Token Ring Card in the Upstream Neighbor Station is Bad. 3) This Station's Token Ring Card is Bad. RECOMMENDED ACTIONS: 1) Check the cable between this Station and its Upstream Neighbor. 2) Check the Token Ring Card in the Upstream Neighbor Station. 3) Check this Station's Token Ring Card.
Event00420208 {d "%w- %d %m-, %Y - %T"} - BEACON STATE CLEARED - Device {m} of Type {t} reported that the Last Beacon of Type has been cleared.	No probable cause message.
Event00420209 {d "%w- %d %m-, %Y - %T"} - STATION ADDED - Device {m} of Type {t} reported that Station {X 1} has been Added to the Allowed Station List. - (event [{e}])	Prob00420209 RING SECURITY BREACH - STATION ADDED Unauthorized Station has become attached to the Ring.
Event0042020a {d "%w- %d %m-, %Y - %T"} - STATION REMOVED - Device {m} of Type {t} reported that Station {X 1} has been Removed from the Allowed Station List. - (event [{e}])	Prob0042020a RING SECURITY BREACH - STATION REMOVED Unauthorized Station has attempted to attach itself to the Ring. Station was successfully removed from the Ring.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event0042020b {d "%w- %d %m-, %Y - %T"} - RING CONFIGURATION CHANGED - Device {m} of Type {t} reported that its Ring Configuration has changed. - (event [{e}])	No probable cause message.
Event0042020c {d "%w- %d %m-, %Y - %T"} - PORT REMOVED DURING FAULT RECOVERY - Device {m} of Type {t} reported that Port {I 1} in Module {I 2} was Removed from the Ring during a Fault Recovery Condition. - (event [{e}])	Prob0042020c PORT REMOVED DURING FAULT RECOVERY SYMPTOMS: A Port was Removed from the Ring during a Fault Recovery Condition. PROBABLE CAUSES: 1) Bad cable connected to Removed Port. 2) Device connection is bad at other end of the cable. RECOMMENDED ACTIONS: 1) Check cable connected to Removed Port. 2) Check Device connection at other end of the cable. 3) After problem is resolved, Enable the Removed Port.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event0042020d {d "%w- %d %m-, %Y - %T"} - BOARD BYPASSED DURING FAULT RECOVERY - Device {m} of Type {t} reported that Module {I 1} was Bypassed during a Fault Recovery Condition. - (event [{e}])	Prob0042020d BOARD BYPASSED DURING FAULT RECOVERY SYMPTOMS: A Module was Bypassed during a Fault Recovery Condition. PROBABLE CAUSES: 1) This Module is configured with a different Ring Speed than the Hub. RECOMMENDED ACTIONS: 1) Pull out the Bypassed Module from the Hub. 2) Re-configure this Module's Ring Speed to match that of the Hub. 3) Physically insert the Module back into the Hub. 4) Set this Module's Bypass State to Inserted.
Event0042020e {d "%w- %d %m-, %Y - %T"} - PORT VIOLATION - Device {m} of Type {t} reported that Port {I 2} in Module {I 1} has detected a Link while the Port's Management State was Disabled. - (event [{e}])	No probable cause message.
Event0042020f {d "%w- %d %m-, %Y - %T"} - PORT VIOLATION CLEARED - Device {m} of Type {t} reported that Port {I 2} in Module {I 1} has detected an Unlink while the Port's Management State was Disabled. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420210 {d "%w- %d %m-, %Y - %T"} - FAULT RECOVERY OSCILLATION - Device {m} of Type {t} reported that the Ring is oscillating. - (event [{e}])	Prob00420210 FAULT RECOVERY OSCILLATION SYMPTOMS: The Ring is oscillating. Oscillation occurs when the Ring fails a short time after recovery.
Event00420211 {d "%w- %d %m-, %Y - %T"} - RING PURGE THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Purge Threshold Value of {I 1} has been Exceeded within the Timebase Value of {I 2}. - (event [{e}])	Prob00420211 RING PURGE THRESHOLD EXCEEDED SYMPTOMS: The Ring Purge Threshold Value has been Exceeded. A Ring Purge is used to make the Ring return to a normal condition. PROBABLE CAUSE: An Active Monitor will initiate the Ring Purge process when: 1) A Token Error condition is detected by the Active Monitor. 2) An adapter becomes the Active Monitor in the Monitor Contention Process.
Event00420212 {d "%w- %d %m-, %Y - %T"} - RING ACTIVE MONITOR ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Active Monitor Errors Threshold Value of {I 1} has been Exceeded within the Timebase Value of {I 2}. - (event [{e}])	Prob00420212 RING ACTIVE MONITOR ERRORS THRESHOLD EXCEEDED SYMPTOMS: The Ring Active Monitor Errors Threshold Value has been Exceeded. PROBABLE CAUSES: 1) The Active Monitor may have received a Ring Purge or an Active Monitor Present frame that it did not transmit. 2) The Active Monitor may have received a Claim Token MAC frame which indicates that a duplicate Active Monitor or another Station has detected an error within the Active Monitor.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420213 {d "%w- %d %m-, %Y - %T"} - RING TOKEN ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Token Errors Threshold Value of {I 1} has been Exceeded within the Timebase Value of {I 2}. - (event [{e}])	Prob00420213 RING TOKEN ERRORS THRESHOLD EXCEEDED SYMPTOMS: The Ring Token Errors Threshold Value has been Exceeded. PROBABLE CAUSE: The Active Monitor has recognized an error condition that requires a Token to be transmitted. This occurs when the timer for a valid transmission expires (10ms).
Event00420214 {d "%w- %d %m-, %Y - %T"} - RING CLAIM TOKEN THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Claim Token Threshold Value of {I 1} has been Exceeded within the Timebase Value of {I 2}. - (event [{e}])	Prob00420214 RING CLAIM TOKEN THRESHOLD EXCEEDED SYMPTOMS: The Ring Claim Token Threshold Value has been Exceeded. PROBABLE CAUSES: When a Station in Standby Monitor state has determined that there is no Active Monitor operating on the Ring. If the Station claims the Token, it becomes the new Active Monitor for the Ring.
Event00420215 {d "%w- %d %m-, %Y - %T"} - RING LOST FRAMES THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Lost Frames Threshold Value of {I 1} has been Exceeded within the Timebase Value of {I 2}. - (event [{e}])	Prob00420215 RING LOST FRAMES THRESHOLD EXCEEDED SYMPTOMS: The Ring Lost Frames Threshold Value has been Exceeded. PROBABLE CAUSE: The Ring Lost Frame Error occurs when a Station is transmitting and its timer for return expires. The Lost Frame count keeps track of how many frames transmitted by a Station fail to return. If a frame becomes lost the Active Monitor will issue a new Token.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420216 {d "%w- %d %m-, %Y - %T"} - RING BEACON STATE THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Beacon State Threshold Value of {I 1} has been Exceeded within the Timebase Value of {I 2}. - (event [{e}])	Prob00420216 RING BEACON STATE THRESHOLD EXCEEDED SYMPTOMS: The Ring Beacon State Threshold Value has been Exceeded. PROBABLE CAUSE: When a Station determines that a serious Ring failure has occured it will generate a Beacon MAC frame.
Event00420217 {d "%w- %d %m-, %Y - %T"} - RING FRAME COUNT THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Frame Count Threshold Value of {I 1} has been Exceeded within the Timebase Value of {I 2}. - (event [{e}])	Prob00420217 RING FRAME COUNT THRESHOLD EXCEEDED SYMPTOMS: The Ring Frame Count Threshold Value has been Exceeded.
Event00420218 {d "%w- %d %m-, %Y - %T"} - STATION LINE ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that Station {X 3} has Exceeded the Line Errors Threshold Value of {I 1} within the Timebase Value of {I 2}. - (event [{e}])	No probable cause message.
Event00420219 {d "%w- %d %m-, %Y - %T"} - STATION INTERNAL ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that Station {X 3} has Exceeded the Internal Errors Threshold Value of {I 1} within the Timebase Value of {I 2}. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event0042021a {d "%w- %d %m-, %Y - %T"} - STATION BURST ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that Station {X 3} has Exceeded the Burst Errors Threshold Value of {I 1} within the Timebase Value of {I 2}. - (event [{e}])	No probable cause message.
Event0042021b {d "%w- %d %m-, %Y - %T"} - STATION A/C ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that Station {X 3} has Exceeded the A/C Errors Threshold Value of {I 1} within the Timebase Value of {I 2}. - (event [{e}])	No probable cause message.
Event0042021c {d "%w- %d %m-, %Y - %T"} - STATION RECEIVER CONGESTION THRESHOLD EXCEEDED - Device {m} of Type {t} reported that Station {X 3} has Exceeded the Receiver Congestion Threshold Value of {I 1} within the Timebase Value of {I 2}. - (event [{e}])	No probable cause message.
Event0042021d {d "%w- %d %m-, %Y - %T"} - STATION REMOVE FAILURE - Device {m} of Type {t} reported that Station {X 1} could not be Removed from the Ring after three attempts.	Prob0042021d RING SECURITY BREACH - STATION REMOVE FAILURE Unauthorized Station has attempted and succeeded in attaching itself to the Ring. After 3 consecutive tries, the Station was not successfully removed from the Ring.
Event00420220 {d "%w- %d %m-, %Y - %T"} - PORT INSERTED - Device {m} of Type {t} reported that a Station has been Inserted into Board {I 1}, Port Group {I 2}, Port {I 3}. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420221 {d "%w- %d %m-, %Y - %T"} - PORT DEINSERTED - Device {m} of Type {t} reported that a Station has been DeInserted from Board {I 1}, Port Group {I 2}, Port {I 3}. - (event [{e}])	No probable cause message.
Event00420222 {d "%w- %d %m-, %Y - %T"} - RING SPEED FAULT - Device {m} of Type {t} reported that Board {I 1} has entered the Ring Speed Fault State. - (event [{e}])	Prob00420222 RING SPEED FAULT SYMPTOMS: A Token Ring Module has entered the Ring Speed Fault State. PROBABLE CAUSES: 1) A Station or Ring Port attaching with a different speed than this Module is configured for. RECOMMENDED ACTIONS: 1) Detach the Station or Ring Port from the Module. 2) Re-configure the Station or Ring Port speed to match the speed of the affected Module. 3) Re-attach the Station or Ring Port to the Module.
Event00420223 {d "%w- %d %m-, %Y - %T"} - RING SPEED FAULT CLEARED - Device {m} of Type {t} reported that Board {I 1} has left the Ring Speed Fault State. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420224 {d "%w- %d %m-, %Y - %T"} - RING PORT FAULTED - Device {m} of Type {t} reported that Board {I 1}, Port Group {I 2}, Port {I 3} has entered the Wrapped State while its Management State was Enabled. - (event [{e}])	Prob00420224 RING PORT FAULTED SYMPTOMS: A Ring Port has entered the Wrapped State while its Management State was Enabled. PROBABLE CAUSES: 1) Bad cable connected to affected Port. 2) Device is down at other end of the cable. 3) Device connection is bad at other end of the cable. RECOMMENDED ACTIONS: 1) Check cable connected to affected Port. 2) Power up Device at other end of the cable. 3) Check Device connection at other end of the cable.
Event00420225 {d "%w- %d %m-, %Y - %T"} - RING PORT FAULT CLEARED - Device {m} of Type {t} reported that Board {I 1}, Port Group {I 2}, Port {I 3} has left the Wrapped State. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420226 {d "%w- %d %m-, %Y - %T"} - BEACON STATE - Device {m} of Type {t} reported that Beacon Type {I 8} has been detected on Ring {I 1} from station {T string 2}, address {X 3}. The Upstream Neighbor Station is {X 4}, Board {I 5}, Port Group {I 6}, Port {I 7}. - (event [{e}])	Prob00420226 BEACON STATE SYMPTOMS: A Station attached to this Device has detected a new Beacon on the Ring while the Ring was in Operational State. PROBABLE CAUSES: 1) The cable between this Station and its Upstream Neighbor. 2) The Token Ring Card in the Upstream Neighbor Station is Bad. 3) This Station's Token Ring Card is Bad. RECOMMENDED ACTIONS: 1) Check the cable between this Station and its Upstream Neighbor. 2) Check the Token Ring Card in the Upstream Neighbor Station. 3) Check this Station's Token Ring Card.
Event00420227 {d "%w- %d %m-, %Y - %T"} - BEACON STATE CLEARED - Device {m} of Type {t} reported that the Last Beacon on Ring {I 1} has been cleared.	No probable cause message.
Event00420228 {d "%w- %d %m-, %Y - %T"} - STATION ADDED - Device {m} of Type {t} reported that Station {X 2} on Ring {I 1} has been Added to the Allowed Station List. - (event [{e}])	Prob00420228 RING SECURITY BREACH - STATION ADDED Unauthorized Station has become attached to the Ring.
Event00420229 {d "%w- %d %m-, %Y - %T"} - STATION REMOVED - Device {m} of Type {t} reported that Station {X 2} on Ring {I 1} has been Removed from the Allowed Station List. - (event [{e}])	Prob00420229 RING SECURITY BREACH - STATION REMOVED Unauthorized Station has attempted to attach itself to the Ring. Station was successfully removed from the Ring.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event0042022c {d "%w- %d %m-, %Y - %T"} - PORT REMOVED DURING FAULT RECOVERY - Device {m} of Type {t} reported that Board {I 1}, Port Group {I 2}, Port {I 3} was Removed from the Ring during a Fault Recovery Condition. - (event [{e}])	Prob0042022c PORT REMOVED DURING FAULT RECOVERY SYMPTOMS: A Port was Removed from the Ring during a Fault Recovery Condition. PROBABLE CAUSES: 1) Bad cable connected to Removed Port. 2) Device connection is bad at other end of the cable. RECOMMENDED ACTIONS: 1) Check cable connected to Removed Port. 2) Check Device connection at other end of the cable. 3) After problem is resolved, Enable the Removed Port.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event0042022e {d "%w- %d %m-, %Y - %T"} - BOARD BYPASSED DURING FAULT RECOVERY - Device {m} of Type {t} reported that Board {I 1} was Bypassed during a Fault Recovery Condition. - (event [{e}])	Prob0042022e BOARD BYPASSED DURING FAULT RECOVERY SYMPTOMS: A Module was Bypassed during a Fault Recovery Condition. PROBABLE CAUSES: 1) This Module is configured with a different Ring Speed than the Hub. RECOMMENDED ACTIONS: 1) Pull out the Bypassed Module from the Hub. 2) Re-configure this Module's Ring Speed to match that of the Hub. 3) Physically insert the Module back into the Hub. 4) Set this Module's Bypass State to Inserted.
cat Event0042022f {d "%w- %d %m-, %Y - %T"} - PORT VIOLATION - Device {m} of Type {t} reported that Board {I 1}, Port Group {I 2}, Port {I 3} has detected a Link while the Port's Management State was Disabled. - (event [{e}])	No probable cause message.
Event00420230 {d "%w- %d %m-, %Y - %T"} - PORT VIOLATION CLEARED - Device {m} of Type {t} reported that Board {I 1}, Port Group{I 2} in Port {I 3} has detected an Unlink while the Port's Management State was Disabled. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420231 {d "%w- %d %m-, %Y - %T"} - RING PURGE THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Purge Threshold Value of {I 2} has been Exceeded within the Timebase Value of {I 3} for Ring {I 1}. - (event [{e}])	Prob00420231 RING PURGE THRESHOLD EXCEEDED SYMPTOMS: The Ring Purge Threshold Value has been Exceeded. A Ring Purge is used to make the Ring return to a normal condition. PROBABLE CAUSE: An Active Monitor will initiate the Ring Purge process when: 1) A Token Error condition is detected by the Active Monitor. 2) An adapter becomes the Active Monitor in the Monitor Contention Process.
Event00420232 {d "%w- %d %m-, %Y - %T"} - RING ACTIVE MONITOR ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Active Monitor Errors Threshold Value of {I 2} has been Exceeded within the Timebase Value of {I 3} for Ring {I 1}. - (event [{e}])	Prob00420232 RING ACTIVE MONITOR ERRORS THRESHOLD EXCEEDED SYMPTOMS: The Ring Active Monitor Errors Threshold Value has been Exceeded. PROBABLE CAUSES: 1) The Active Monitor may have received a Ring Purge or an Active Monitor Present frame that it did not transmit. 2) The Active Monitor may have received a Claim Token MAC frame which indicates that a duplicate Active Monitor or another Station has detected an error within the Active Monitor.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420233 {d "%w- %d %m-, %Y - %T"} - RING TOKEN ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Token Errors Threshold Value of {I 2} has been Exceeded within the Timebase Value of {I 3} for Ring {I 1}. - (event [{e}])	Prob00420232 RING ACTIVE MONITOR ERRORS THRESHOLD EXCEEDED SYMPTOMS: The Ring Active Monitor Errors Threshold Value has been Exceeded. PROBABLE CAUSES: 1) The Active Monitor may have received a Ring Purge or an Active Monitor Present frame that it did not transmit. 2) The Active Monitor may have received a Claim Token MAC frame which indicates that a duplicate Active Monitor or another Station has detected an error within the Active Monitor. $ cat Prob00420233 RING TOKEN ERRORS THRESHOLD EXCEEDED SYMPTOMS: The Ring Token Errors Threshold Value has been Exceeded. PROBABLE CAUSE: The Active Monitor has recognized an error condition that requires a Token to be transmitted. This occurs when the timer for a valid transmission expires (10ms).
Event00420234 {d "%w- %d %m-, %Y - %T"} - RING CLAIM TOKEN THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Claim Token Threshold Value of {I 2} has been Exceeded within the Timebase Value of {I 3} for Ring {I 1}. - (event [{e}])	Prob00420234 RING CLAIM TOKEN THRESHOLD EXCEEDED SYMPTOMS: The Ring Claim Token Threshold Value has been Exceeded. PROBABLE CAUSES: When a Station in Standby Monitor state has determined that there is no Active Monitor operating on the Ring. If the Station claims the Token, it becomes the new Active Monitor for the Ring.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420235 {d "%w- %d %m-, %Y - %T"} - RING LOST FRAMES THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Lost Frames Threshold Value of {I 2} has been Exceeded within the Timebase Value of {I 3} for Ring {I 1}. - (event [{e}])	Prob00420235 RING LOST FRAMES THRESHOLD EXCEEDED SYMPTOMS: The Ring Lost Frames Threshold Value has been Exceeded. PROBABLE CAUSE: The Ring Lost Frame Error occurs when a Station is transmitting and its timer for return expires. The Lost Frame count keeps track of how many frames transmitted by a Station fail to return. If a frame becomes lost the Active Monitor will issue a new Token.
Event00420236 {d "%w- %d %m-, %Y - %T"} - RING FRAME COUNT THRESHOLD EXCEEDED - Device {m} of Type {t} reported that the Ring Frame Count Threshold Value of {I 2} has been Exceeded within the Timebase Value of {I 3} for Ring {I 1}. - (event [{e}])	Prob00420236 RING FRAME COUNT THRESHOLD EXCEEDED SYMPTOMS: The Ring Frame Count Threshold Value has been Exceeded.
Event00420237 {d "%w- %d %m-, %Y - %T"} - STATION LINE ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that Station {X 4} has Exceeded the Line Errors Threshold Value of {I 2} within the Timebase Value of {I 3} for Ring {I 1}. - (event [{e}])	Prob00420237 LINE ERRORS THRESHOLD EXCEEDED SYMPTOMS: The Line Errors Threshold Value has been Exceeded.
Event00420238 {d "%w- %d %m-, %Y - %T"} - STATION INTERNAL ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that Station {X 4} has Exceeded the Internal Errors Threshold Value of {I 2} within the Timebase Value of {I 3} for Ring {I 1}. - (event [{e}])	Prob00420238 LOST INTERNAL ERRORS THRESHOLD EXCEEDED SYMPTOMS: The Lost Internal Errors Threshold Value has been Exceeded.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event00420239 {d "%w- %d %m-, %Y - %T"} - STATION BURST ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that Station {X 4} has Exceeded the Burst Errors Threshold Value of {I 2} within the Timebase Value of {I 3} for Ring {I 1}. - (event [{e}])	Prob00420239 The Lost Burst Errors Threshold Value has been Exceeded.
Event0042023a {d "%w- %d %m-, %Y - %T"} - STATION A/C ERRORS THRESHOLD EXCEEDED - Device {m} of Type {t} reported that Station {X 4} has Exceeded the A/C Errors Threshold Value of {I 2} within the Timebase Value of {I 3} for Ring {I 1}. - (event [{e}])	Prob0042023a The Address/Copied Errors Threshold Value has been Exceeded.
Event0042023b {d "%w- %d %m-, %Y - %T"} - STATION RECEIVER CONGESTION THRESHOLD EXCEEDED - Device {m} of Type {t} reported that Station {X 4} has Exceeded the Receiver Congestion Threshold Value of {I 2} within the Timebase Value of {I 3} for Ring {I 1}. - (event [{e}])	Prob0042023b The Receiver Congestion Errors Threshold Value has been Exceeded.
Event0042022a {d "%w- %d %m-, %Y - %T"} - STATION REMOVE FAILURE - Device {m} of Type {t} reported that Station {X 2} could not be Removed from Ring {I 1} after three attempts.	Prob0042022a Unauthorized Station has attempted and succeeded in attaching itself to the Ring. After 3 consecutive tries, the Station was not successfully removed from the Ring.
Event0042023c {d "%w- %d %m-, %Y - %T"} - RING SPEED FAULT - Device {m} of Type {t} reported that Board {I 1}, Port Group {I 2}, Port {I 3} has entered the Ring Speed Fault State. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event0042023d {d "%w- %d %m-, %Y - %T"} - RING SPEED FAULT CLEARED - Device {m} of Type {t} reported that Board {I 1}, Port Group, {I 2}, Port {I 3} has left the Ring Speed Fault State. - (event [{e}])	No probable cause message.
Event0042022b {d "%w- %d %m-, %Y - %T"} - RING SECURITY BREAK - Device {m} of Type {t} reported that a Token Ring Station Port was removed during a security recovery. Board {I 1}, Port Group {I 2}, Port {I 3}.	No probable cause message.
Event0042022d {d "%w- %d %m-, %Y - %T"} - PORT GROUP REMOVED DURING FAULT RECOVERY - Device {m} of Type {t} reported Board {I 1} Port Group {I 2} was Bypassed. - (event [{e}])	No probable cause message.
Event0042023e {d "%w- %d %m-, %Y - %T"} - TR TPIM INSTALLED - Device {m} of Type {t} reported a TPIM was inserted on Board {I 1}, Port Group {I 2}, Port {I 3}. - (event [{e}])	No probable cause message.
Event0042023f {d "%w- %d %m-, %Y - %T"} - TR TPIM REMOVED - Device {m} of Type {t} reported a TPIM was removed on Board {I 1}, Port Group {I 2}, Port {I 3}. - (event [{e}])	No probable cause message.

Table 4-1. STHi Event and Probable Cause Messages (Continued)

Event0042023f {d "%w- %d %m-, %Y - %T"} - TR TPIM REMOVED - Device {m} of Type {t} reported a TPIM was removed on Board {I 1}, Port Group {I 2}, Port {I 3}. - (event [{e}])	No probable cause message.
Event00420241 {d "%w- %d %m-, %Y - %T"} - FAULT RECOVERY OSCILLATION - Device {m} of Type {t} reported that Ring {I 1} is oscillating. - (event [{e}])	Prob00420241 The Ring is oscillating. Oscillation occurs when the Ring fails a short time after recovery.

Chapter 5

STHi Network Application

What is in this Chapter

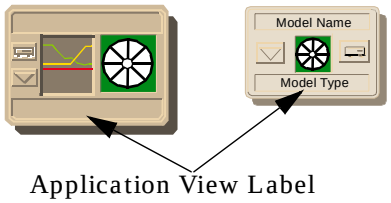
This chapter describe the Network application in the STHi's Application view, which allows you to view information relating to the ring in which the STHi is installed. This chapter lists the Icon Subviews available from the Network application icon and describes the following views:

- Cabletron Token Ring Station Table view
- Cabletron Token Ring Station Isolating Errors Table view
- Cabletron Token Ring Non-Isolating Errors Table view
- Cabletron Token Ring Ring Configuration view.

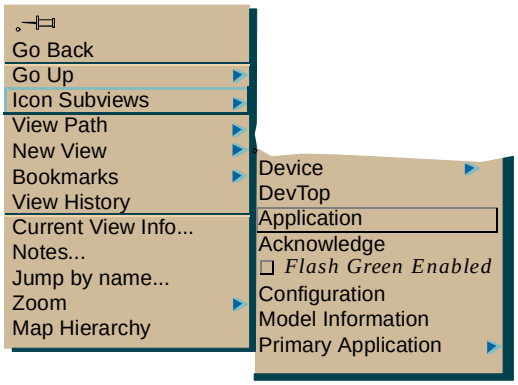
Accessing the STHi Application View

Access the Application view using one of the following methods:

- Double-click on the Device View button of the STHi device icon. This will open the Application view.



- Highlight the STHi device icon and select **Applications** from the Icon Subviews menu.



The Application View contains icons for all of the common and device-specific applications for the STHi. With the exception of the Network application, the STHi's applications are described in the Applications documentation.

The Network Application

The Icon Subviews menu for the Network 1 icon provides access to the following views:

Table 5-1. Network Icon Subviews

View	Description
Device	Opens the STHi Device view. For more information on the Device view, refer to Chapter 2, *Device View*.
Stations	Opens the Cabletron Token Ring Station Table view. More information about the Cabletron Token Ring Station Table view follows this table.
Station Errors	Opens the Cabletron Token Ring Station Isolating Errors Table view. More information about this view follows this table.
Configuration	Opens the Cabletron Token Ring Ring Configuration view. More information about this view follows this table.

Cabletron Token Ring Station Table View

The Cabletron Token Ring Station Table view lists the stations connected to the ports of the STHi hub and provides access to other station views. The Station Table view serves as a starting point for several station management tasks.

A Device Banner appears at the top of the Station Table view, detailing information about the STHi device. Below this, characteristics of the ring are displayed. The values for Ring Name, Ring Number, Ring Speed, and Ring Status are included. The MAC address for the Active Monitor is shown just below the ring information, as are the access buttons for the Isolating Errors Table and the Alarms Table.

The main portion of the Cabletron Token Ring Station Table view consists of the station table itself which lists each station connected to the STHi hub. Entries for each station consist of the station's address and name, number of frames passed, number of errors, and the module and port number for the station. The following buttons allow you to manipulate the station table data:

Update

Click this button to obtain the latest information for each station.

Totals/Delta

Click this button so that it shows the desired numerical display. For instance, if you want to see Frame and Error data since the station was first monitored by SPECTRUM, toggle the button so that it shows **Totals**. If you want to see the Frame and Error data since the table was last updated, toggle the button to **Delta**.

MAC/Canonical

Click this button so that it shows the desired station address format. The station addresses will be displayed either in the MAC or Canonical format.

Set Filter

Click on this button to configure or clear a filter for the chosen table field. The procedure for configuring a filter is outlined below.

Setting a Filter for Station Table Entries

1. Click on the table heading whose entries you'd like to filter.
2. Click on the Set Filter button.

   A dialog box appears and allows you to set a filter or clear a filter. Clearing a filter will result in all stations being displayed.
3. Enter the filter in the resulting dialog box.
4. Click OK.

Sort Up/Sort Down/Un-sort

Click this button to organize the entries for the chosen table entries into ascending or descending order. Toggling the button so that it displays Un-sort will undo any order previously specified.

Station Detail

Click this button to access the Cabletron Token Ring Station Detail view. The Station Detail view breaks down the stations traffic into frames and errors and displays this information in a color-coded pie chart. Two other pie charts display the Isolating Errors and Non-Isolating Errors statistics. The Station Detail view also displays the up and downstream neighbors of the station, provides access to the Cabletron Token Ring Station Alarms Configuration view (described later in this chapter), and allows you to enable a station's removal from the ring if alarm thresholds are surpassed.

Station Alarms

Click this button to access the Station Alarm Dialog box. To configure an alarm for a particular station, follow the steps below.

1. Enter thresholds for Line, Internal, Burst, A/C and Congestion errors.
2. Click on the desired button to Enable or Disable each alarm.
3. Move the stations you'd like to apply the alarm configurations to into the ***Apply Settings to:*** list by double-clicking on the station's MAC address in the ***Stations*** list or by highlighting the station's address and clicking the navigation buttons that are between the two lists.
4. Click the **Apply** button to set the alarms for the selected stations.

Remove Station

Click this button to remove the highlighted station from the ring. A dialog box will prompt you to confirm the removal of the station.

Isolating Errors Table

The Cabletron Token Ring Station Isolating Errors view, accessed via the Station Table view's **Isolating Errors** button or the Icon Subviews menu for the Network application, lists the number of Line, Burst, A/C, Abort, and Internal errors for each station on the ring. The Isolating Errors view provides access to the Non-Isolating Errors Table, via the **Non-Isolating Errors Table** button, and the Cabletron Token Ring Station Alarm Thresholds view, accessed via the **Alarms Table** button.

Non-Isolating Errors Table

Click this button to access the Cabletron Token Ring Station Non-Isolating Errors view. This table shows the number of Lost Frames, Congestions, FrameCopied, Token, and Frequency errors for each station on the ring.

Alarms Table

Click this button in any of the Station Table views or the Token Ring Configuration view to access the Cabletron Token Ring Station Alarm Thresholds view. The Alarms Table view may also be accessed via the Cabletron Token Ring Configuration view. This view lists the threshold for the Line, Burst, A/C, Internal, and Congestions errors for each station on the ring.

Cabletron Token Ring Configuration View

This view displays the following Ring Configuration:

- Ring Name --You may define this by highlighting the text box and entering the desired name.
- Ring Number --Read Only
- Ring Speed --Read Only
- Ring Status --Read Only
- Station Ports On --Read Only
- Ring Ports On --Read Only

Port Configuration Panel
The Port Configuration panel also allows you to Enable or Disable all station and/or Ring ports by toggling the buttons in the panel so that they display **NoEnable** or **Enable**.

Host Configuration Panel
The host configuration panel lets you to allow or disallow Active Monitor Contention, open or close the host, and perform a hardware or software reset.

Ring Configuration

Click the Ring Configuration button to access the Cabletron Token Ring Ring Configuration view.

Cabletron Token Ring Ring Configuration View

The Cabletron Token Ring Ring Configuration view displays information about the ring the STHi manages.

- Ring Name --You may define this by highlighting the text box and entering the desired name.
- Ring Number --Read Only
- Ring Speed --Read Only
- Ring Status --Read Only
- Active Monitor --Read Only
- Active Stations --Read Only
- Beacon Recovery --You may choose **Disabled**, **Enabled**, or **Invalid** for the Beacon Recovery status.

Setting Alarms for the Ring

To set alarm thresholds for the ring, follow the steps below.

1. Enter the desired threshold for the errors listed in the view.
   - Ring Purges
   - AMP Errors
   - Claim Token Errors
   - Lost Frames
   - Token Errors
   - Beacon State
   - Frame Count
2. Click the button next to the Threshold text box so that it displays the desired status for the alarm. (Enabled or Disabled)
3. Enter the Ring Timebase in the text box provided.
4. Choose **Save and Close** from the File menu.

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